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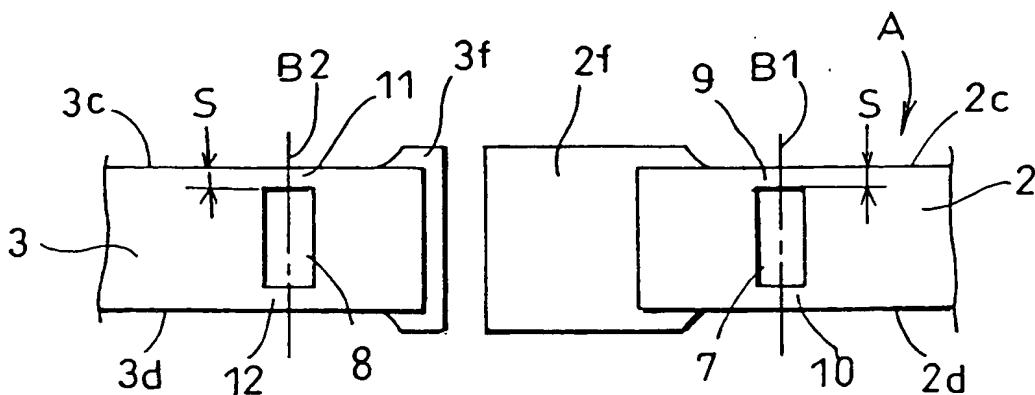
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各PCTガゼットの巻頭に掲載されている「コードと略語  
のガイダンスノート」を参照。

(54)Title: METHOD FOR CUTTING LEAD TERMINAL OF PACKAGE TYPE ELECTRONIC COMPONENT

(54)発明の名称: パッケージ型電子部品におけるリード端子の切断方法



(57)Abstract: In an electronic component having a lead terminal, for a semiconductor chip, projecting from a molding part for packaging a semiconductor chip, or the like, a main notch for cutting is provided while leaving unnotched parts at the opposite ends thereof before the molding part is formed. After the molding part is formed, the lead terminal is cut at the position of the main notch thus making smaller and fewer burrs occurring on the cutting face.

(57)要約: 半導体チップ等をパッケージするモールド部から、前記半導体チップに対するリード端子を突出して成る電子部品において、前記リード端子の表面に、前記モールド部を成形する前に、切断用のメインノッチを、その両端にノッチなしの部分を残して設け、次いで、前記モールド部を成形したあとで、前記リード端子を、前記メインノッチの箇所で切断することにより、その切断面に発生する切断バリを、小さく且つ少なくする。

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/13287

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> H01L23/495

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H01L23/48-23/50

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2004
Kokai Jitsuyo Shinan Koho	1971-2004	Jitsuyo Shinan Toroku Koho	1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 391439 A (Dai Nippon Printing Co., Ltd.), 21 February, 1995 (21.02.95), Full text; Fig. 1 & JP 4-134852 A Full text; Fig. 1	1, 3, 4, 7
Y	JP 6-216298 A (Toppan Printing Co., Ltd.), 05 August, 1994 (05.08.94), Full text; Figs. 1 to 11 (Family: none)	1, 3, 4, 7
Y	JP 4-171854 A (NEC Kyushu Co., Ltd.), 19 June, 1992 (19.06.92), Full text; Fig. 1 (Family: none)	1, 3, 4, 7

Further documents are listed in the continuation of Box C.

See patent family annex.

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
07 January, 2004 (07.01.04)

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Name and mailing address of the ISA/  
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## INTERNATIONAL SEARCH REPORT

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## C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2001/52643 A1 (Koichi SUGUHARA), 20 December, 2001 (20.12.01), Full text & JP 4-134852 A Full text	1-8
A	CD-ROM of the specification and drawings annexed to the request of Japanese Utility Model application no. 46704/1991 (laid-open no. 1246/1993) (NEC Yamagata, Ltd.), 08 January, 1993 (08.01.93), Full text; Figs. 1 to 4 (Family: none)	1-8